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Appn. Number: 10/068,606
Appn. Filed: 2002 Feb 02
Applicant: Rogers, Ernest

Title: Spherical and Polyhedral Shells with Improved Segmentation

Examiner /GAU: Christy M. Green /3635

Mailed: 2004 Mar 01
At: Pleasant Grove, Utah 84062
Fresno, CA 93704

Record of Interview

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

On February 13, at 9:30 AM EST, a telephone interview was held between applicant and the Examiner, initiated by applicant. The following is a brief summary of the substance of the interview.

1. The following items were faxed to the Examiner for discussion:

- a) A draft of Amendment A, response to OA of 2003 Aug 14.
- b) Copy of formal drawings, with needed corrections.

2. Claims discussed: 1, 14, 18 and 20.

3. Prior art discussed: Novak, #3,691,704; Monson et al., Pub. US2002/0078635 A1;
Tuczek #6,282,849.

4. Principal proposed amendments discussed:

Specification Amendments

- a) Clarification of the meaning of "segment."
- b) Amendments related to use of angle measure, in degrees, for lengths and widths.
- c) Improved consistency of use of the term, "interior angles."
- d) Changes to more distinctly define the "oblong shape" of segments.

Claim Amendments

- a) Rewording claims to more clearly define over prior art, concerning segment shapes.

- b) Restriction offered by applicant limiting area coverage of segments.
- c) Addition to claims preamble to provide antecedent basis for "the area."

Drawings

Formal drawings were presented, with errors corrected.

5. General thrust of discussion: Applicant is inexperienced with the amendment process and wished to review his form and approach in responding to the Examiner's objections. Examiner listened to applicant's concerns and offered that the draft appeared to be in good order. Several concerns were discussed briefly.

The specification was corrected so that the unmodified term "segment" would only refer to a whole, physical segment. This is consistent with the use of the term in the claims.

The Examiner suggested that the specification should include an explanation of the use of angular measurement for measuring lengths and widths on a spherical surface. (Applicant implemented the suggestion in the filed amendment.)

The specification was corrected to provide proper antecedent basis for the term "interior angle." Further confusion in reference to angles in Fig. 3C was shown to have been corrected in the completed formal drawings.

Use of the term "oblong" was discussed. Applicant proposed to replace or supplement the term with language that more specifically defines the shape(s) of segments in the invention. Rhombus faces and other shapes in Tuczec, and spherical "kite" shapes in Novak and Monson, are different than shapes being claimed and need to be excluded. Appropriate changes to the specification and to independent claims 1, 14, 18, 20 were presented. The wording of claim 14, dealing with polygonal shells, was discussed further. Part "c" of the claim was reworded to more clearly indicate that each face contained more than one polygon. Applicant explained how the segments of Fig. 11B combine to form the shell of Fig. 11A, where each segment comprises two hexagons of equal width and size stuck together. The wording of claim 14 was the best applicant could devise that would include this embodiment.

Applicant raised a concern that the claims as originally presented do not place any limits on the portion of the area of a shell that is occupied by the essentially identical segments in the claims. A proposed change to the claims would remedy this oversight by requiring that the combined area of the essentially identical segments should compose more than 39% of the area



the shell. This limitation is consistent with all embodiments in the application and thus helps to more precisely define the invention.

The Examiner pointed out that antecedent basis was required for "the area" newly added to the independent claims, and applicant agreed to re-write the preamble to introduce "an area."

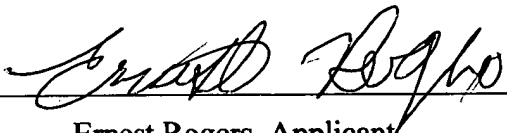
The Examiner stated that no agreements had been reached concerning applicant's changes, and that a second search would be conducted as a part of the second examination.

6. Other matters discussed: Examiner noted that since the final date for response fell on a Saturday, that applicant's response would be acceptable if mailed by the next business day, on Monday, February 16th.

7. **Conclusion:** The discussion was found to be very helpful to both sides in improving understanding. Applicant wishes to thank the Examiner for helpful suggestions on the claims and for help in clarifying important concepts in the specification.

Certificate of Mailing: I hereby certify that on the date below this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

2004 March 01


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